Incidental advantages of the system are that by adjustment of the separation between the concave and convex elements, the magnifying power can be varied within a reasonable percentage of that for which the set has been computed without sensible loss of quality, and that the best possible observing conditions can thus be established, according to the brightness of the object or the state of the atmosphere; also that the eyepoint will lie about four times as far from the last lens as it does in an ordinary eyepiece of the same magnifying power.

The principle can also be applied to terrestrial telescopes, especially those of the prismatic type; but in this case the objective should be included in the computation, as its contribution to curvature and astigmatism cannot be neglected.

This note is published in the hope that designers will work out formulæ for their respective firms, and that eyepieces of this highly desirable type will thus become commercially obtainable at an early date.

Technical Optics Department,
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South Kensington, 1918 *April* 10.

Orbit of Planet DB (Alinda). By A. C. D. Crommelin.

An orbit has been derived from the following three photographic positions, of which the first two were obtained by Prof. Wolf at Königstuhl, and the third by Mr. Davidson with the 30-inch reflector at Greenwich. The positions are for 1918·0 and are corrected for parallax, the assumed values of log Δ being 9·3351, 9·4753, 9·7129 respectively.

G.M.T. 1918	R.A.	N. Dec.
h m	h m s	° ′ ″
Jan. 3 8 21·96	5 16 27·04	12 26 16·37.
Feb. 5 8 37·44	6 56 6·03	34 19 28·27.
Mar. 9 9 6·74	8 33 29·51	35 50 41·35.

The following are the elements that have been deduced:—

$T = 1918$ Jan. 3·60813 G.M.T.
$\omega = 347^\circ\ 45'\ 50''\cdot87$
$\Omega = 110\ \ 54\ \ 5\cdot83$ } 1918·0.
$i = 8\ \ 57\ \ 21\cdot24$
$\phi = 32\ \ 10\ \ 4\cdot64.$
$\mu = 883''\cdot081.$
$\log a = 0\cdot402671.$
$\log q = 0\cdot072542.$
Period $= 4^{y}\cdot01795.$

Constants of equator—

$$x = [9{\cdot}9953581]\, r \sin (v + 188^\circ\ 54'\ 3''{\cdot}84).$$
$$y = [9{\cdot}9729649]\, r \sin (v + 101\ \ 58\ \ 9\ \ {\cdot}01).$$
$$z = [9{\cdot}5702738]\, r \sin (v + \ 77\ \ 22\ \ 2\ \ {\cdot}76).$$

The elements differ very slightly from those of Stracke, but are entitled to greater weight, owing to the longer interval covered by the observations, and the nearer approach to equality in the time intervals.

The near approach of the period to four years implies that a favourable opposition occurred in 1914, and another will occur in 1922. Outline ephemerides for these oppositions are appended; the first in the hope that images of the planet may possibly be found on plates taken four years ago.

Greenwich Noon.	R.A.	N. Dec.	log Δ.
	h m s	° ′	
1913 Dec. 18	7 0 34	4 45	9·3473
28	7 26 22	10 58	9·3180
1914 Jan. 7	7 52 39	18 24	9·3155
17	8 16 20	25 23	9·3452
27	8 38 8	30 37	9·3995
1921 Dec. 31	3 29 52	4 39	9·4541
1922 Jan. 10	3 50 43	12 6	9·4572
20	4 19 20	19 43	9·4766
30	4 55 14	26 21	9·5134
Feb. 9	5 37 2	31 23	9·5627

The planet is so small that it will be nearly hopeless to detect it except at perihelion oppositions.

The fact that the period approximates to one-third of that of Jupiter will make the perturbations by that planet specially interesting. In the coming revolution there will not be a near approach to Jupiter.

Observations of Encke's Comet (1917 *c.*) *made with the 28-inch Equatorial at the Royal Observatory, Greenwich.*

(*Communicated by the Astronomer Royal.*)

G.M.T.	R.A. Comet − *.	R.A. Corr. for Refr.	R.A. Log Factor of Parallax.	Decl. Comet − *.	Decl. Corr. for Refr.	Decl. Log Factor of Parallax.	Star.
1918. d h m s	s	s		″	″		
Mar. 9 7 17 59·74	− 82·38	+ ·08	9·5699	...	...	...	*a*
7 22 38·15	−116·99	+ ·03	9·5709	...	...	...	*b*
7 36 14·59	...	...	...	+178·73	− 2·03	0·8241	*b*
Mar. 12 7 22 25·54	+138·32	+ ·14	9·5717	...	...	...	*c*
7 33 23·82	+ 70·85	+ ·20	9·5727	...	...	...	*d*
7 55 19·51	...	...	...	+656·19	+18·18	0·8335	*e*